

Claims

1. (Currently Amended) An end fitting for a flexible pipe, the end fitting comprising a housing having an inner surface defining a bore for receiving an end portion of the pipe, ~~the surface of the housing defining~~ the bore having at least one two axially spaced raised portions each having a curved cross section for engaging the corresponding outer surface of the pipe to provide a seal.
2. (Currently Amended) The end fitting of claim 1 wherein ~~the~~ each raised portion is formed integrally with the housing.
3. (Currently Amended) The end fitting of claim 1 or 2 wherein ~~the~~ each raised portion is in the form of an annular ring.
4. (Currently Amended) The end fitting of claims 1, 2, ~~or 3~~ claim 1 wherein ~~there are at least two axially spaced raised portions further comprising a radially extending test port formed through the housing and opening at an outer surface of the housing and at the inner surface of the housing at a location between the raised portions.~~
5. (Currently Amended) The end fitting of claim 1 wherein ~~the~~ each raised portion is formed by providing scallops in the housing surface.
6. (Currently Amended) The end fitting of claim 1 wherein ~~the~~ each raised portion is formed by providing undulations in the housing surface.
7. (Original) The end fitting of claim 1 further comprising a radially extending, internally threaded, opening formed through the housing and extending to the bore, and a bolt threadedly engaging the opening and adapted to engage the pipe.

8. (Currently Amended) The end fitting of claim 1 wherein the bore is stepped to define at least two bore portions having different diameters, ~~the~~ each raised portion being formed in the bore portion having the lesser diameter.

9. (Currently Amended) The end fitting of claim 1 or 8 further comprising a support ring extending within an end portion of the pipe so that the latter end portion of the pipe extends within between the raised portions and the support ring.

10. (Original) The end fitting of claim 9 wherein the ring has an annular flange formed thereon that engages the shoulder defined between the two bore portions.

11. (Original) The end fitting of claim 10 wherein the flange extends radially outwardly from the flange.

12. (Currently Amended) The end fitting of claims 10 ~~or 11~~ wherein the flange extends between the shoulder and the corresponding end of the pipe.

13. (Original) The end fitting of claim 8 wherein the pipe has multiple layers, wherein the end portions of all of the layers extends in the bore portion with the greater diameter; and wherein the end portion of less than all the layers extend in the bore portion with the lesser diameter.

14. (Currently Amended) The end fitting of claim 13 wherein ~~the~~ each raised portion is formed in the bore portion with the lesser diameter.

15. (Currently Amended) A pipe assembly comprising an end fitting comprising a housing having an inner surface defining a bore for receiving an end portion of the pipe, ~~the~~ surface of the housing defining the bore having at least ~~one~~ two axially spaced raised portions each having a curved cross section; and a flexible pipe having an end portion extending in the bore, the raised portions engaging the corresponding outer surface of the pipe to provide a seal.

16. (Currently Amended) The pipe assembly of claim 15 wherein ~~the~~ each raised portion is formed integrally with the housing.

17. (Currently Amended) The pipe assembly of claim 15 or 16 wherein ~~the~~ each raised portion is in the form of an annular ring.

18. (Currently Amended) The pipe assembly of ~~claims 15, 16, or 17~~ claim 15 wherein ~~there are at least two axially spaced raised portions further comprising a radially extending test port formed through the housing and opening at an outer surface of the housing and at the inner surface of the housing at a location between the raised portions.~~

19. (Currently Amended) The pipe assembly of claim 15 wherein ~~the~~ each raised portion is formed by providing scallops in the housing surface.

20. (Currently Amended) The pipe assembly of claim 15 wherein ~~the~~ each raised portion is formed by providing undulations in the housing surface.

21. (Original) The pipe assembly of claim 15 further comprising a radially extending, internally threaded, opening formed through the housing and extending to the bore, and a bolt threadedly engaging the opening and adapted to engage the pipe.

22. (Currently Amended) The pipe assembly of claim 15 wherein the bore is stepped to define at least two bore portions having different diameters, the raised portions being formed in the bore portion having the lesser diameter.

23. (Currently Amended) The pipe assembly of claim 15 or 22 further comprising a support ring extending within an end portion of the pipe so that the latter end portion of the pipe extends ~~within~~ between the raised portions and the support ring.

24. (Original) The pipe assembly of claim 23 wherein the ring has an annular flange formed thereon that engages the shoulder defined between the two bore portions.

25. (Original) The pipe assembly of claim 24 wherein the flange extends radially outwardly from the flange.

26. (Currently Amended) The pipe assembly of claims 24 or 25 wherein the flange extends between the shoulder and the corresponding end of the pipe.

27. (Original) The end fitting of claim 22 wherein the pipe has multiple layers, wherein the end portions of all of the layers extend in the bore portion with the greater diameter; and wherein the end portions of less than all the layers extend in the bore portion with the lesser diameter.

28. (Currently Amended) The pipe assembly of claim 27 wherein the each raised portion is formed in the bore portion with the lesser diameter.

29. (Currently Amended) A method of assembling a pipe assembly comprising forming a bore in an end fitting, forming at least one two axially spaced raised portions each having a curved cross section on the inner surface of the housing defining the bore; and inserting an end portion of a flexible pipe in the bore with the raised portions engaging the corresponding outer surface of the pipe to provide a seal.

30. (Currently Amended) The method of claim 29 wherein the each raised portion is formed integrally with the housing.

31. (Currently Amended) The method of claim 29 or 30 wherein the each raised portion is in the form of an annular ring.

32. (Currently Amended) The method of claims 29, 30, or 31 claim 29 wherein there are at least two axially spaced raised portions further comprising forming a radially extending test port through the housing, the test port opening at an outer surface of the housing and at the inner surface of the housing at a location between the raised portions.

33. (Currently Amended) The method of claim 29 wherein the step of forming each raised portion comprises providing scallops in the housing surface.

34. (Currently Amended) The method of claim 29 wherein the step of forming each raised portion comprises providing undulations in the housing surface.

35. (Original) The method of claim 29 further comprising forming a radially extending, internally threaded, opening through the housing and extending to the bore, and threadedly engaging the opening with a bolt and extending the bolt through the opening so that it engages the pipe.

36. (Currently Amended) The method of claim 29 further comprising stepping the bore to define at least two bore portions having different diameters, the each raised portion being formed in the bore portion having the lesser diameter.

37. (Currently Amended) The method of claim 29 or 36 further comprising inserting a support ring within an end portion of the pipe so that the latter end portion of the pipe extends within between the raised portions and the support ring.

38. (Original) The method of claim 37 further comprising providing an annular flange on the ring, the step of inserting comprising disposing the flange in engagement with the shoulder defined between the two bore portions.

39. (Original) The method of claim 38 wherein the flange extends radially outwardly from the flange.

40. (Currently Amended) The method of claims 38 or 39 wherein the flange extends between the shoulder and the corresponding end of the pipe.

41. (Original) The method of claim 36 further comprising providing the pipe with multiple layers, disposing the end portions of all of the layers in the bore portion with the greater diameter; and disposing the end portions of less than all the layers in the bore portion with the lesser diameter.

42. (Currently Amended) The method of claim 41 wherein ~~the~~ each raised portion is formed in the bore portion with the lesser diameter.

43. (New) The method of claim 29, further comprising applying a radially outwardly directed force to the inner surface of the pipe end portion to compress the pipe end portion against the raised portions.